

VOLUME XV - A

2022-2023

EVEN SEMESTER

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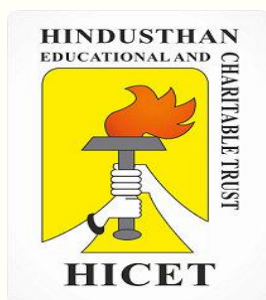
DEPARTMENT OF MECHANICAL ENGINEERING

NEWS LETTER



FROM THE EDITOR'S DESK

Warm greetings! I take immense pleasure and privilege to pen a few words for our college Newsletter. A recap of all the activities and programmes that were conducted during the academic year 2022-2023 is presented in this edition. Eminent speakers from industries, premier institutions and professional academies were invited to share their valuable experience and knowledge with our anxious students. With razor sharp perfection, all these activities were unitedly conducted by a team of energetic, enthusiastic faculty of our department. We are highly indebted to the invaluable assistance and support extended by the Management, CEO, Principal, department staff, office staff and other for all our entire endeavors.



Dr.K.Siva
Head of the Department
Mechanical Engineering

DEPARTMENT VISION

To provide quality technical education in Mechanical Engineering and build holistic professionals who can excel in the engineering establishments and serve for the country with ethical values.

DEPARTMENT MISSION

M1: To prepare graduates with good technical skills and knowledge.

M2: To prepare graduates with life-long learning skills to meet the requirements in the higher education and in society.

M3: To prepare graduates as a successful entrepreneur with employment skills, ethics and human values.

PROGRAMME EDUCATIONAL OBJECTIVES (PEOs)

PEO1: Graduates able to apply technical expertise and skills to face the Industrial challenges.

PEO2: Graduates able to design create and innovate economically, environment-friendly and technically feasible products with social acceptance.

PEO3: Graduates able to exhibit professionalism in their profession with good communication, ethics and entrepreneurship skills to meet the social challenges.

PROGRAMME SPECIFIC OUTCOMES (PSOs)

PSO1: Able to design, analyze and apply knowledge in complex mechanical engineering problems with time effective solutions.

PSO2: Able to understand the relevance of engineering practices for societal requirements and become a multi faceted leader.

PROGRAMME OUTCOMES (POs)

Engineering Graduates will be able to

Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

FACULTY ACHIEVEMENTS

S. No	Name of Faculty	Date of Award	Name of the Award	Name of the Professional Society
1.	Dr.K.Siva Professor	July 2022	Secretary for SAEINDIA Southern Section Management Committee for the term 2022-2024.	SAEINDIA Southern Section
2.	Dr.K.Siva Professor	July 2022	Chairman for SAEINDIA Southern Section Coimbatore Division for the terms 2018-2020, 2020-2022 and 2022-2024.	SAEINDIA – Coimbatore Division
3.	Dr.K.Siva Professor	October 2022	SAEISS Coimbatore Division Chairman, Leadership award	SAE India Southern Section
4.	Dr.K.Siva Professor	October 2022	SAEISS Treasurer, Leadership award	SAE India Southern Section
5.	Dr.K.Siva Professor	Feb 2023	Appreciation Awards for 'Solar vehicle innovation contest' hosted at HICET for 2023.	HICET
6.	Dr.M.Mohanraj Professor	Oct/Nov 2022	Top 2% Scientist	Stanford university – USA.
7.	Dr.Y.Rasmathew, Associate Professor	July 2022	Treasurer (2022-2024)	SAEINDIA – Coimbatore Division
8.	Dr.Y.Rasmathew, Associate Professor	October 2022	SAEISS Coimbatore Division Treasurer-, Leadership award	SAE India Southern Section

PROGRAMMES CONDUCTED



HINDUSTHAN
COLLEGE OF ENGINEERING AND TECHNOLOGY
VALLEY CAMPUS, POLLACHI HIGHWAY, COIMBATORE-32

DEPARTMENT OF MECHANICAL ENGINEERING
association with
EATON
EATON POWER QUALITY PVT LTD
Organizing
One day workshop on
“INDUSTRY DESIGN PRACTICES”
INDUSTRY EXPERTS

 Mr. CIBI JOSEPH Manager Engineering	 Mr. C.R.G SEKARAN Director, ITD India Operations (Inauguration)	 Mr. SHAHUL HAMEEDU Dy. Manager Design	 Mr. K. PUGHAZHENDHI Asst. Manager Design
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CONVENOR
Dr.K.SIVA
HOD/ MECH

PRINCIPAL
Dr.J.JAYA

CEO
Dr.K.KARUNAKARAN

VENUE
GANGA HALL

DATE
08/11/2022

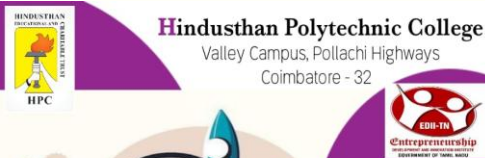
TIME
9.30 AM - 4.30 PM



Workshop on
“Industry Design Practice”
With Industry Experts of
EATON POWER QUALITY PVT LTD


GUEST LECTURE BY THE FACULTY MEMBER

Seminar on
“Intellectual Property Rights”
Expert Member
Dr.C.Nithyanandam
Asso Prof / Mech / HICET



Hindusthan Polytechnic College
Valley Campus, Pollachi Highways
Coimbatore - 32

Entrepreneurship
One Day
Awareness
Programme
On
Entrepreneurship



Thursday
10th Nov
2022

Topics
Business Model & Plan Preparation
Marketing Strategy
Highlighting Government Schemes
Intellectual Property Rights

 Dr. V Kanimozhi Asst Professor - HICET	 Dr. M Bhuvanewari Professor - HICET	 Dr. A Jayanthi Associate Professor - HICET	 Dr. C Nithyanandam Associate Professor - HICET
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Dr K.Karunakaran
CEO

Prof S.Kokilavani
Principal

PAPERS PUBLISHED BY FACULTY

S.No	Title of paper	Name of the author/s	Name of Journal
1	Energy, financial and environmental impact analysis of solar thermal heat pump systems using a direct expansion packed bed evaporator-collector.	Dr.M.Mohanraj	Solar Energy
2	Thermal performance, cost effectiveness and environment analysis of a heat pump assisted regenerative solar still using slack wick wax as heat storage material	Dr.M.Mohanraj	Sustainable Energy Technologies And Assessments
3	Effect of microwave sintering on the microstructure and tribological behaviour of Ti-3Al-2.5V-xWC composites.	Dr.M.Mohanraj	Tribology International
4	Second law based thermodynamic analysis of crushed gravel sand and biomass evaporator assisted solar still.	Dr.M.Mohanraj	Sustainable Energy Technology and Assessment
5	Influence of rotation speeds on microstructure and mechanical properties of welded joints of friction stir welded AA2014-T6/AA6061-T6 alloys.	Dr.M.Mohanraj	Journal of Processes Mechanical Engineering.
6	Simulation of ground water quality for noyyal river basin of Coimbatore city, Tamilnadu using MODFLOW.	Dr.M.Mohanraj	Chemosphere
7	Modelling of Urea Hydrolysis Kinetics using Genetic Algorithm coupled Artificial Neural Networks in Urease Immobilized Magnetite Nanoparticles.	Dr.M.Mohanraj	Chemosphere

8	Feasibility study on raw Simarouba glauca oil as an alternate fuel in a diesel engine and comparative assessment with its esterified oil	A. Tamilvanan, P. Jeyalakshmi , M. Mohanraj , B. Deepanraj	Fuel
9	Over Feat Network Algorithm for Fabric Defect Detection in Textile Industry	Dr.J.Manikandan	Journal of Innovative Image Processing
10	Improved Methodology of SVM to Classify Acoustic Signal by Spectral Centroid	Dr.J.Manikandan	Journal of Trends in Computer Science and Smart Technology
11	Design of a Bottleneck Layered DNN Algorithm for Intrusion Detection System	Dr.J.Manikandan	IRO Journal on Sustainable Wireless Systems
12	Optimizing the Performance of an Automatic Clamping System for Gear-Shaping Machines	Dr.C.Nithyanandam	International Journal of Scientific Research in Engineering and Management
13	A Machine to make Soap from used Cooking oil using Semi-Automatic Process	Dr.C.Nithyanandam	International Journal of Current Science
14	Design and Analysis of Centrifugal Pump Impeller Made of Glass Fiber Material	Dr.C.Nithyanandam	International Journal of Research and Analytical Reviews
15	Rapid Prototyping Technology	Dr.C.Nithyanandam	International Journal of Research in Engineering and Science
16	Energy performance of a compression refrigeration cycle using environment-friendly refrigerants	L. Karthick , V. Senthil Murugan , Stephen Leon Joseph Leon, Mahesh Mallampati M, Ijas Ahamed, Ganesh Babu Loganathan	Materials Today Proceedings
17	CFD analysis of rotating diffuser in a SUV vehicle for improving thermal comfort	L.Karthick, D.Prabhu, K.Rameshkumar, T.Prabhu, C.A.Jagadish	Materials Today: Proceedings

18	A comparison and analysis of mechanical properties of glass fiber and banana fiber composite	L.Karthick, S.Sivakumar, A.Sasikumar, A.Prabhu	Materials Today: Proceedings
19	Modelling and analysis of an EN8 crankshaft in comparison with AISI 4130 crankshaft material	L.Karthick, NareshMallireddy	Materials Today: Proceedings
20	Vehicle safety system for two wheeler – A critical review	L.Karthick, C.A.Jagadish	Materials Today: Proceedings

BOOKS PUBLISHED BY THE FACULTY MEMBERS

S. No	Name of the Faculty	Book chapter Name	Title of the Book	Publisher
1.	Dr.C. Nithyanandam, Dr.K. Siva, V. Senthil Murugan, K. Sriharrish	Green Communications: A Review of the Current Situation	Renewable Energy Optimization, Planning and Control	Springer 07–08 October 2022

**Dr.M.Mohanraj visited YESSENOV University – Kazakhstan
For a Training Program on “Heat pump systems for Desalination and space heating**



CHESS MASTER Mr.RATHNAVEL ACHIEVEMENTS

S. No	Name of the event/tournament	Organized by	Venue/ Place	Awards	National / International
1.	Master Tournament (MTO) Biel International Chess Festival 2022	Biel-Bienne CHESS	Biel , Switzerland	56th	International
2.	38 Obert Internacional d'Escacs d'Andorra 2022	Federació d'Escacs Valls d'Andorra	Andorra , Andorra	3rd Place , 1000 Euros Cash Prize	International
3.	28th Abu Dhabi International Chess Festival - Masters	Abu Dhabi Chess Club & Mind Games	Abu Dhabi , UAE	50th	International
4.	Dubai Open 2022	Dubai Chess & Culture Club	Dubai , UAE	48th	International
5.	D.A.V. Krida Kendram International Open FIDE Rating Blitz Chess Tournament-2022	D.A.V Krida Kendram, Sports Academy of D.A.V Group of Schools	Chennai , India	1st , 18,000 Rs Cash Prize	National

Mr. Vigneswaran

Mechanical Engineering – 2018-2022



**Got selected for Master of Science in
Autonomous Systems and Robotics program for fall 2023
At the Illinois Institute of Technology and
Obtained the scholarship of \$14000 (Rs.1119099).**

STUDENT ACHIEVEMENTS

Sl.No	Name of the Student	Name of the Event	Organised Committee	Prize
1.	Sai Madhan G	Srishti 2022	Saintgits College, Kottayam	II nd Prize
2.	Sai Madhan G	Bi-Cycle Design Competition	Bannari Amman College, Erode	I st in Maneuverability
3.	Naveen, Santhosh	Mini Bike/ Dirt Bike	Karpagam College of Engineering	Best Team Award
4.	Sai Madhan G	MSME - (Ticketless Entry System)	MSME	Finalist
5.	Riswanth	Smart India Hackathon	DY Patel College of Engineering, Gujarat	Finalist
6.	Arun Rathinavel	IMP	Javadpur University, West Bengal	Finalist
7.	R.Ajith Kumar	Tekknow-2022	Anna University, Chennai	Finalist
8.	Saurav	Toycathon - 2022	Nethaji Subhas University of Technology, Delhi	Finalist
9.	Arun Rathinavel	Toycathon - 2022	Nethaji Subhas University of Technology, Delhi	Finalist
10.	Prabhu	Toycathon - 2022	Nethaji Subhas University of Technology, Delhi	Finalist
11.	T.Sankar, M.Logeswaran	Kabadi	Coimbatore Institute of Techology, Coimbatore	Winner
12.	T.Sankar, M.Logeswaran	Kabadi	Alaganari, Sivangangai	Winner
13.	T.Sankar, M.Logeswaran	Kabadi	Thamariki, Sivangangai	Runner
14.	T.Sankar, M.Logeswaran	Kabadi	Kudaninthal Patti, Madurai	Winner
15.	T.Sankar, M.Logeswaran	Kabadi	Rajiv Gandhi Polytechnic College, Erode	Runner

A Grand Inauguration of vehicles Launch at Hindusthan College of Engineering and Technology



Efficycle Conventional Class



Efficycle Quad Class



**Trustee of Hindusthan Institutions
Smt.Sarasuwathi Khannaiyan**



Efficycle Advance Class



CHIEF EDITOR

**Dr. K.Siva, M.Tech., Ph.D.
Professor and Head**

EDITORS

**Mr.A.Nazeer Ahamed, M.E., Ph.D*,
Assistant Professor**

**Mr.P.John Britto, M.E.,
Assistant Professor**

